OBLON SPIVAK, et al. INVENTOR: Hideo ANDO, et al. DOCKET # 219507US2S DIV SHEET 1_ OF_32.

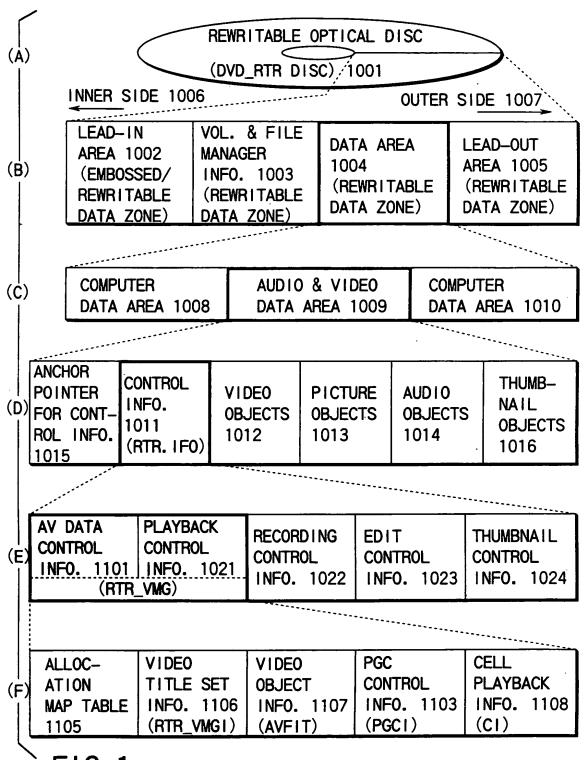


FIG. 1

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ROOT DIRECTORY 1450 SUB DIRECTORY 1451 REWRITABLE TITLE SET RW_VTS 1452 (DVD_RTR DIRECTORY) RTR=REAL TIME RECORDING DATA FILES 1453 CONTROL INFORMATION 1011 =RW_VIDEO_CONTROL. IFO (RTR. IFO) BACKUP OF CONTROL INFO. =RW_VIDEO_CONTROL.BUP AV FILE 1401 (RTR DATA) =RW_OBJECT.OB VIDEO OBJECT (RTR_MOV. VRO) 1012 PICTURE OBJECT (RTR_STO. VRO) 1013 AUDIO OBJECT (RTR_STA.VRO) 1014 THUMBNAIL OBJECT 1016 REWRITABLE ADDITIONAL INFO. 1454 =RW_ADD. DAT SUB DIRECTORY 1451 VIDEO TITLE SET VIDEO_TS (OR VTS) 1455 AUDIO TITLE SET AUDIO_TS (OR ATS) 1456 SUB DIRECTORY FOR COMPUTER DATA STORAGE 1457

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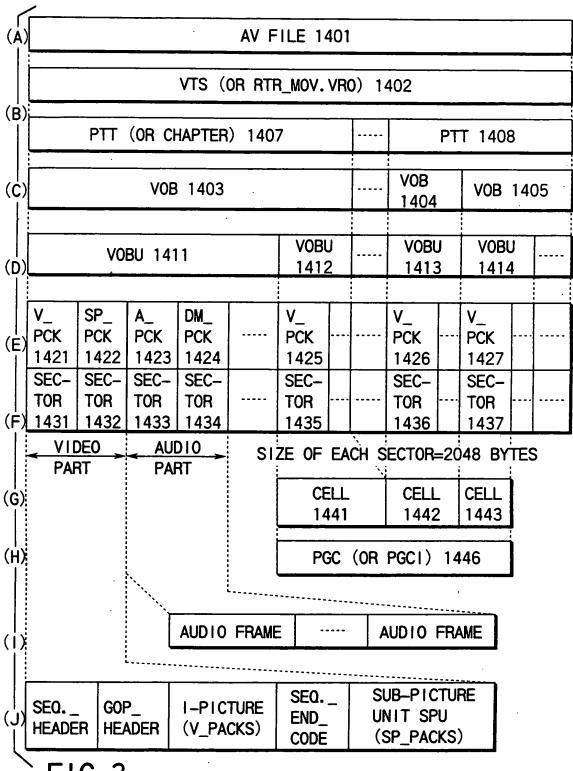


FIG. 3

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	,		
	က္	<u></u>	LSNg
	(3) 1465	EXTENT # ε 1475	
	>	Ш	LSNf+1
	DED	 -	LSNf
	ECOR AREA 1460	EXTENT # \$ 1470	
	S		LSNe+1
	2	—	LSNe
	VOB #2 1462	# B 1472	
01	>	Ш	LSNd+1
E 14	က	EXTENT #δ 1474	LSNd
AV FILE 1401	V0B # (2) 1464		
A	^	Ш.	LSNc+1
			LSNc
i	V0B #1 1461	EXTENT #α 1471	
	V0B	EXT # 14	LSNb+2
			LSNb+1
	#3) 63		LSNb
		EXTENT # γ 1473	
	VOB (1	EX # 7	LSNa+2
			LSNa+1

←SMALLER LOGICAL SECTOR NUMBER (LSN) ←INNER SIDE OF OPTICAL DISC 1001

LARGER LOGICAL SECTOR NUMBER (LSN)→ OUTER SIDE OF OPTICAL DISC 1001→

FIG 4

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CONTENTS OF NUMBER OF UNRECOR	DED AREA 1601	1	
ALLOCATION 1ST ADF MAP TABLE EXTENT	R. (LSN) OF 1ST IN UNRECORDED	е	-a
DISTRIBUTION EXTENT	SECTORS) OF 151 IN UNRECORDED	f-	-е
POSITIONS OF NUMB	ER OF EXTENTS OB #1 1602		1
AREA 1621 1ST AL	OR. (LSN) OF 1ST F IN VOB #1 1607	t) —а
INFORMATION OF SIZE	(SECTORS) OF 1ST T IN VOB #1 1615	1	c-b
RECORDED DATA NUM	BER OF EXTENTS VOB #2 1603		1
1622 1ST A	DR. (LSN) OF 1ST IT IN VOB #2 1608	Γ 3	d–a
INFORMATION OF SIZE	(SECTORS) OF 1S NT IN VOB #2 161	Τ	e-d
RECORDED DATA NUM	MBER OF EXTENTS VOB #3 1604		3
1623	ADR. (LSN) OF 1S	T 09	1
INFORMATION OF	(SECTORS) OF 19 ENT IN VOB #3 16	ST	b-a
RECORDED DATA	ADR. (LSN) OF 2 ENT IN VOB #3 16	ND	c-a
1624 EAT	E (SECTORS) OF 2 ENT IN VOB #3 16	ND	d-c
191	ADR. (LSN) OF 3 TENT IN VOB #3 16	3RD	f–a
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ZE (SECTORS) OF TENT IN VOB #3 1	3RD	g-f
110.5			

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PGC CONTROL INFO. (OR UD_PGCIT) 1103 PGC INFORMATION MANAGEMENT INFO. (OR UD_PGCIT) 1052 PGC INFORMATION PGC GENERAL INFO. SEARCH POINTER #1 (OR PGC_GI) 1061 (UD_PGCI_SRP#1) 1053 PROGRAM INFO. (PGI#1) PGC INFORMATION SEARCH POINTER #n (UD_PGCI_SRP#n) 1054 PROGRAM INFO. PGC INFORMATION #1 (PGI#m) (OR UD PGCI#1) 1055 CELL ID #1 (OR CI_SRP#1) PGC INFORMATION #i (OR UD_PGCI#i) 1056 CELL ID #m 1151 (OR CI_SRP#m) PGC INFORMATION #n CELL INFO. (CI#1) (OR UD_PGCI#n) 1057 #i=ANY ONE OF #1 TO #n CELL INFO. (CI#n)

- *1> PGC INFORMATION (OR UD_PGC1) CAN DEFINE A GROUP OF ONE OR MORE PROGRAMS:
- *2> EACH PROGRAM CAN BE FORMED OF ONE OR MORE CELLS;
- *3> EACH CELL CAN BE SPECIFIED BY CELL ID (OR CI_SRP);
- *4> EACH CELL ID (OR CI_SRP) CAN INDICATE POSITION (OR START ADDRESS) OF CELL INFORMATION (OR CI);
- *5> EACH CELL INFORMATION (OR CI) CAN DETERMINE START TIME AND END TIME OF PRESENTATION OF CELL

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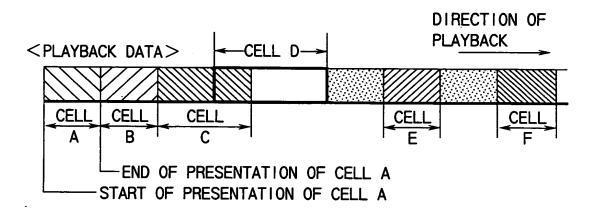


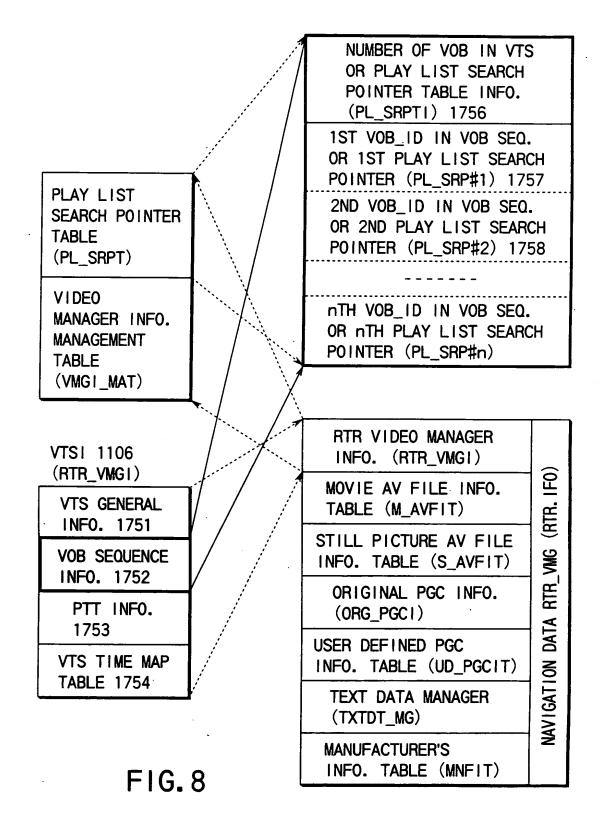
FIG. 7A

PGC INFORMATION (PGCI)

PGC#1	1081	PGC#2	2 1082	PGC#3	3 1083
NUMBE CELLS		NUMBI CELLS	ER OF S=3	NUMBI CELL:	ER OF S=5
#1	CELL A	#1	CELL D	#1	CELL E
#2	CELL B	#2	CELL E	#2	CELL A
#3	CELL C	#3	CELL F	#3	CELL D
				#4	CELL B
				# 5	CELL E
CELL ID	CELL INFO.	CELL ID	CELL INFO.	CELL ID	CELL INFO.
CI_SRP #m=3	CI #n=3	CI_SRP #m=3	CI #n=3	CI_SRP #m = 5	CI #n=4

FIG. 7B

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FIG. 9A				A	AV FILE 1401	10	-		
F16.9B			>	VTS (OR RTR_MOV. VRO) 1402	R_MOV. VI	70) 1402			
	V0B#1 1461	>-	V0B#2 1462		> -	V0B#3 1763		UNF	UNRECORDED AREA 1460
F16.9C	EXTENT# a 1471		EXTENT# /3 1472	EXTENT# γ 1473		EXTENT# 8 1474	EXTENT# ε 1475	 	EXTENT# \$ 1470
FIG. 9D				AV	AV FILE 1401	10			
F16.9E		VTS (0	R RTR_MO\	V. VRO/RTF	STO. VR	J/RTR_STA	VTS (OR RTR_MOV. VRO/RTR_STO. VRO/RTR_STA. VRO) 1402	72	
	0_M	4_V0B1#—→	.,		-#190A ⁻ S	#19			
	V0B#A 1771	V0B#B 1772	V0B#C 1773	V0B#D 1774	V0B推 1775	V0B#F 1776	V0B#G	V0B#H 1778	V0B#1 1779
	VIDEO OR IECTS	C	AUD10	PICTURE OB IECTS	품 £	AUD10	0	THUMBNAI	NAIL
F16.9F	1012	2	1014	1013	2	1014	2	1016	2
	←—RTR_MOV. VRO→ RTR_STA. VRO →	L_MOV. VRO-		←-RTR_STO. VRO-→ ←-RTR_STA. VRO-→	.0. VR0→		A. VRO->		

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1631 S_V0GI#) FIG. 10A VOB FOR PICTURE OBJECTS (OR STILL PICTURE VOB GROUP RELATING TO

VOBU (FOR ONE STILL PICTURE) 1641 FIG. 10B

	. V_PCK 1661	V_PCK 1662	V_PCK 1663	SP_PCK 1681	A_PCK 1691	A_PCK 1692
. 10C	1-PIC	TURE 1706	DUMMY DATA	SP_STREAM	A_STREAM	A_STREAM
			-VIDEO PART		AUDIO PART	PART

1632 PICTURE VOB GROUP RELATING TO S_VOGI#) (OR STILL FIG. 10D VOB FOR PICTURE OBJECTS

V0BU 1644	
:	
V0BU 1643	
FIG 10F VOBU (ONE STILL PICT.) 1642	

	×	
	A_PCK	1695
	V_PCK	. 1991
	-	
	V_PCK	1666
	A_PCK	1694
F		
	V_PCK	1665
	A_PCK	1693
	SP_PCK	1682
	:	
	V_PCK	1664
	טַר	5
	7	- 5
	П	_

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FIG. 10G VOB FOR PI	VOB FOR	PICTURE	OBJECTS (OR STILL	. PICTURE	CTURE OBJECTS (OR STILL PICTURE VOB GROUP RELATING TO S_VOGI#) 1633	JP RELATI	NG T(\$190A_S (;) 1633
FIG. 10H	1	VOBU (ONE STILL PICTURE) 1645	L PICTURE	:) 1645		V0BU 1646			V0BU 1647	1647
			ļ							
,	V_PCK	V_PCK	V_PCK	SP_PCK	SP_PCK V_PCK V_PCK	V_PCK	V_PCK		V_PCK	
	0001	6001	0/01	1003	1/01	7/01	16/3		16/4	
FIG. 101	I-PICTURE	JRE 1707	DUMMY 1704	DUMMY SP_ 1704 STREAM	I-PICT	I-PICTURE 1708	DUMMY 1705		I-PICTURE 1709	E 1709
		VIDEO PART-	PART —			-VIDEO PART-			←-VIDEO PART>	PART —

FIG. 10J VOB FOR PI	<u>S</u>	VOB FOR	PICTURE	OBJECTS	OR STI	LL PICTL	IRE VOB G	CTURE OBJECTS (OR STILL PICTURE VOB GROUP RELATING TO S_VOGI#) 1634	ATING TO	190A_S 0	‡) 1634
F16.1	옷	FIG. 10K VOBU (ONE		STILL PICTURE) 1648	E) 1648	>	V0BU 1649			VOBU 1650	1650
FIG. 10	10	SP_PCK 1684		A_PCK 1697	A_PCK 1698	PCK A_PCK A_PCK A_PCK A_PCK A_PCK 696 1697 1698 1699 1700 1701	A_PCK A_PCK 1699 1700	A_PCK 1701		A_PCK 1702	
			AUDIC	-AUDIO PART		▼	AUDIO PART	1		← AIDIO PART	PART→

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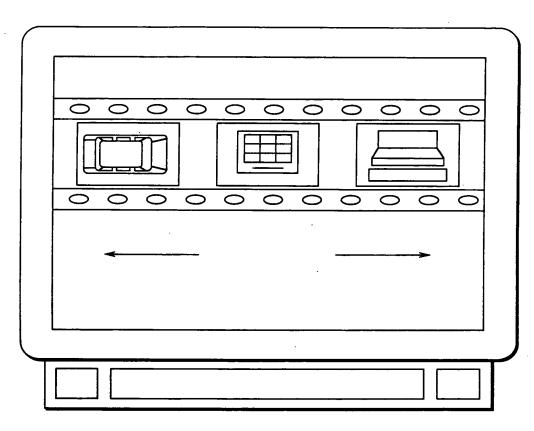


FIG. 11

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STILL PICTURE AV FILE (S_AVFIT)

STILL PICTURE AV FILE INFO. TABLE INFO. (S AVFITI)

STILL PICT, VOB STREAM INFO. #1 (S_VOB_STI#1)

STILL PICT. VOB STREAM INFO. #n $(S_VOB_STI#n)$

STILL PICTURE AV FILE INFO. (S AVFI)

STILL PICT. AD-DITIONAL AUDIO STREAM INFO. #1 (S_AA_STI#1)

STILL PICT. AD-DITIONAL AUDIO STREAM INFO. #m (S_AA_STI#m)

STILL PICTURE ADDITIONAL AUDIO FILE INFO. (S AAFI)

VOB INFO. FOR PICT. OBJECTS **MANAGEMENT** INFO. 1721 (OR S_AVFI GI) SEARCH POINTER OF VOB INFO. FOR PICT. OBJECTS #1 1726 (OR S_VOGI_SRP#1) SEARCH POINTER OF VOB INFO. FOR PICT. OBJECTS #i 1727 (OR S VOGI SRP#i)

SEARCH POINTER OF VOB INFO. FOR PICT. OBJECTS #k 1728 (OR S_VOGI SRP#k)

VOB INFO. FOR PICT. OBJECTS #1 1731 (OR S_VOGI#1)

VOB INFO. FOR PICT. OBJECTS #i 1732 (OR S VOGI#i)

VOB INFO. FOR PICT. OBJECTS #k 1733 (OR S_VOGI#k)

VOB GENERAL INFORMATION FOR PICTURE **OBJECTS** 1736 (OR STILL PICTURE **VOB GROUP** GENERAL INFO. S_VOG_GI)

VOB ATTRIB. INFORMATION FOR PICTURE **OBJECTS** 1737

VOBU MAP FOR PICTURE **OBJECTS** 1738 (OR STILL PICTIRE **VOB ENTRES** S_VOB_ENT#)

FIG. 12 #i=ANY ONE OF #1 TO #k OBLON SPIVAK, et al. INVENTOR: Hideo ANDO, et al. DOCKET # 219507US2S DIV SHEET 14 OF 32

VOB ATTRIB. INFO. FOR PICT.		STILL PICT. ENTRY TYPE (S_VOB_ ENT_TY)
0BJ. 1737	1000	NUMBER OF STILL PICT.
VOBU MAP FOR PICT. OBJ. 1738 (S_VOB_ ENT#)		(OR NUMBER OF VOBUS) IN CORRES— PONDING VOB 1801 (OR S_VOB_NS) INFO. OF 1ST STILL PICT. IN CORRES—
VOB GENERAL INFO. 1736 OR S_VOG_ GI		PONDING VOB 1802 INFO. OF 2ND STILL PICT. IN CORRES— PONDING VOB 1803 INFO. OF 3RD STILL PICT. IN CORRES—
		PONDING VOB 1804
	À	

DATA SIZE OF STILL PICTURE (OR VOBU) INDICATED BY USED SECTORS 1806 (OR VIDEO PART SIZE V_PART_SZ/ AUDIO PART SIZE A_PART_SZ) DISPLAY TIME OF ONE STILL PICTURE 1807 REPRESENTED BY PLAYBACK TIME OF AUDIO PART (IF VOBU CONTAINS A_PCK) OR REPRESENTED BY DISPLAY TIME OF VIDEO PART (IF VOBU CONTAINS NO A_PCK) ADDRESS OF 1ST V_PCK IN VOBU 1808 (OR S_VOG_SA) SIZE OF I-PICTURE IN VOBU (INDICATED BY TOTAL BYTES) 1809 🔨 PRESENTATION START TIME S PTM OF STILL PICTURE (V_PCK/SP_PCK) 1810 1ST SYSTEM CLOCK REFERENCE F_SCR OF STILL. PICTURE (V_PCK/SP_PCK) 1811 ADDRESS OF 1ST A PCK IN VOBU 1812 AUDIO S PTM (PRESENTATION START TIME OF A_PCK) 1813 AUDIO E_PTM (PRESENTATION END TIME OF A_PCK) 1814 AUDIO F_SCR (SYSTEM CK REF. OF 1ST A_PCK IN VOBU) 1815 AUDIO L_SCR (SYSTEM CK REF. OF LAST A_PCK IN VOBU) 1816

PLAYBACK TIME OF AUDIO PART A_PB_TM

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FIG. 14A				0/	VOB #A 1821	21	-		
	V0BU 1825	1825	>	VOBU 1826	9		80/	VOBU 1827	
FIG. 14B	STILL PICT. NO.	T. NO. 1	STILL	STILL PICT. NO.	NO. 2		STILL F	STILL PICT. NO.	h .
	STLPCT	AUDIO	STLPCT	PCT	AUDIO	STLPCT	STLPCT	AUDIO	0
	1831	1841	1832	2	1842	1833	1834	1843	
	V_PCK	A_PCK	V_PCK	SP_PK	_	V_PCK	V_PCK	A_PCK	<u> </u>
716.140	1851	1861	1852	1848	1862	1853	1854	1863	
	CONTENTS	တ္က (IST SEL		•		LAST	STIL	_ PICT.
, L	SPECIFIED RV CELL	3	V_PCK	SP_PK	A_PCK	V_PCK	V_PCK		A_PCK
F16.14D			1852	1848	1865	1853	1854	1 18	1866
				>			\		
		A_PCK	V_PCK	A_PCK	V_PCK	V_PCK	A_PCK	V_PCK	
		1864	1855	1865	1856	1857	1866	1858	
! !		AUD 10	STLPCT	AUD10	STLPCT	STLPCT	AUDIO	STLPCT	
F16.14E		1844	1835	1845	1836	1837	1846	1838	
			CTILL DICTIBE	JCT1 IDE		עבווו	יומיודטונ		
		<u> </u>		2 2 1		NO. h+i-2	1010RE 2	•	:
FIG. 14F			V0BU 1828	1828		NBOA	V0BU 1829		
FIG. 146				0/	VOB #B 1822	22			

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CONTENTS (S_CI) OF CELL PLAYBACK INFO. (CI) FOR PICTURE OBJECTS 1870	EXAMPLE 1871 WITH RESPECT TO FIG.14	EXAMPLE 1872 WITH RESPECT TO FIG.14
CELL ID (CI_SRP) 1873		
TYPE INFORMATION OF CELL (C_TY) 1880		
ID INFORMATION OF VOB WITH V_PCK 1874	VOB #A	1821
STILL PICT. NUMBER 1875 IN VOB INCLUDING V_PCK OF 1ST STILL PICTURE IN CELL (S_S_VOB_ENTN)	2	1826
STILL PICT. NUMBER 1876 IN VOB INCLUDING V_PCK OF LAST STILL PICTURE IN CELL (E_S_VOB_ENTN)	h	1827
ID INFORMATION OF VOB WITH A_PCK 1877	VOB #B	1822
STILL PICT. NUMBER 1878 IN VOB INCLUDING A_PCK OF 1ST STILL PICTURE IN CELL	j 	1828
PRESENTATION TIME 1879 OF EACH STILL PICTURE HAVING NO CORRESPONDING A_PCK	2 SECONDS (ONE LINE)	

FIG. 15

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CONTENTS OF CELL PLAYBACK INFO. (CI) FOR PTT	
CELL ID (CI_SRP) 1883	
TYPE INFO. OF CELL (C_TY) 1882	
ID INFO. OF PTT WITH V_PCK 1884	
STILL PICTURE NUMBER 1885 IN PTT OF VOB INCLUDING V_PCK OF 1ST STILL PICTURE IN CELL	
STILL PICTURE NUMBER 1886 IN PTT OF VOB INCLUDING V_PCK OF LAST STILL PICTURE IN CELL	
ID INFO. OF PTT WITH A_PCK 1887	
STILL PICTURE NUMBER 1888 IN PTT OF VOB INCLUDING A_PCK OF 1ST STILL PICTURE IN CELL	
PRESENTATION TIME 1889 OF EACH STILL PICT. HAVING NO CORRESPONDING A_PCK	

FIG. 16

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STILL PICTURE AV FILE INFO. (S_AVFI) FOR PTT (CHAPTER)

PTT INFO. FOR PICT. OBJECTS MANAGEMENT INFO. 1891

SEARCH POINTER OF PTT INFO. FOR PICT. OBJECTS #1 1892

SEARCH POINTER OF PTT INFO. FOR PICT. OBJECTS #2 1893

PTT INFO. FOR PICT. OBJECTS #1 1895

PTT INFO. FOR PICT. OBJECTS #2 1896

PTT GENERAL INFORMATION FOR PICTURE OBJECTS 1898

VOB MAP FOR PICTURE OBJECTS 1899

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VOB MAP FOR PICT. OBJECTS 1899

NUMBER OF STILL PICT. (OR NUMBER OF VOBs) IN CORRESPONDING PTT 1901 (OR S_VOB_Ns)

INFO. OF 1ST STILL PICT. IN CORRESPONDING PTT 1902

INFO. OF 2ND STILL PICT. IN CORRESPONDING PTT 1903 DATA SIZE OF STILL PICTURE (OR VOB) INDICATED BY USED SECTORS 1906

DISPLAY TIME OF ONE STILL
PICTURE 1907 REPRESENTED
BY PLAYBACK TIME OF AUDIO
PART (IF VOB CONTAINS
A_PCK) OR REPRESENTED BY
DISPLAY TIME OF VIDEO PART
(IF VOB CONTAINS NO A_PCK)

ADDRESS OF 1ST V_PCK IN VOB 1908 (OR S_VOG_SA)

SIZE OF I-PICTURE IN VOB (INDICATED BY TOTAL BYTES) 1909

PRESENTATION START TIME S_PTM OF STILL PICTURE (V_PCK/SP_PCK) 1910

1ST SYSTEM CLOCK REFERENCE F_SCR OF STILL. PICTURE (V_PCK/SP_PCK) 1911

ADDRESS OF 1ST A_PCK IN VOB 1912

AUDIO S_PTM (PRESENTATION START TIME OF A_PCK) 1913

AUDIO E_PTM (PRESENTATION END TIME OF A_PCK) 1914

AUDIO F_SCR (SYSTEM CK REF. OF 1ST A_PCK IN VOB) 1915

AUDIO L_SCR (SYSTEM CK REF. OF LAST A PCK IN VOB) 1916

DVD_RTR DISC 1001

0

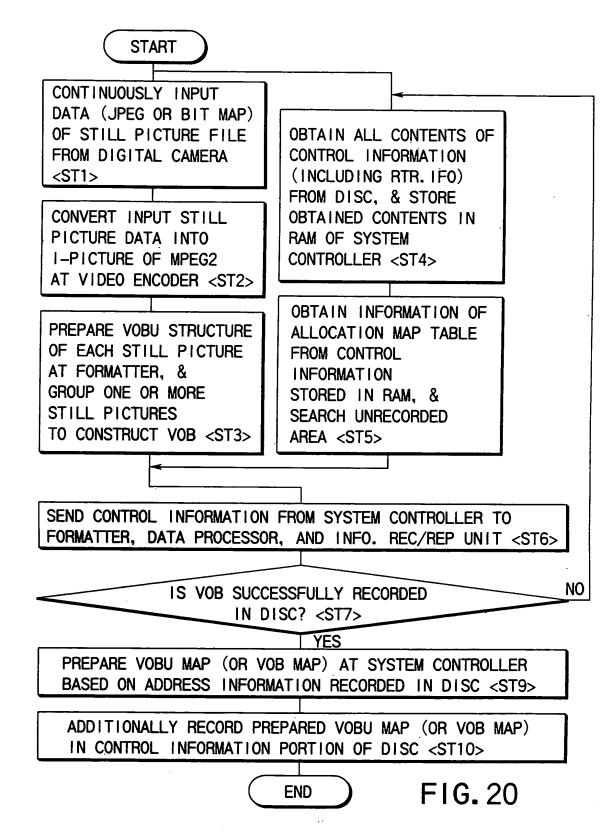
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INVENTOR: Hideo ANDO, et al. DOCKET # 219507US2S DIV SHEET <u>20</u> OF <u>32</u> PROC-ESSOR V-DAC VIDE0 1564 1566 DISC CHANGER (DISC DRIVE) 1500 DEC DEC 1567 **AV OUTPUT 1546** OF RTR RECODER 1548 DISPLAY/INPUT PANEL SP-DEC 1565 DECODER UNIT 1560 MEMORY 1563 1562 A-DEC A-DAC 1569 1568 **RATOR** SEPA-CONTROLLER (MPU WITH ROM/RAM) SYSTEM 1530 DATA PROC-ESSOR 1538 REC/REPRO UNIT 101 STC 1536 FORM-ATTER 1556 BUFFER MEMORY 1557 1554 F A ENCODER UNIT 1550 1555 1522 1553 TEMP. BUFFER SP-ENC BC ENC **MEMORY 1534** DIGITAL CAMERA

1543

INPUT 1542 **TUNER**

1544

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START

OBTAIN ALL CONTENTS OF CONTROL INFORMATION (RTR. IFO) FROM DISC, & STORE OBTAINED CONTENTS IN RAM OF SYSTEM CONTROLLER <ST11>

OBTAIN PLAYBACK CONTROL INFO. FROM CONTROL INFO. STORED IN RAM, & INTERPRETE OBTAINED INFORMATION AS TO MANNER OF REPRODUCTION <ST12>

SEARCH PROGRAM TO BE REPRODUCED BASED ON PGC CONTROL INFO. IN RAM, OBTAIN CELL(S) IN PGC INFORMATION OF SEARCHED PROGRAM, & OBTAIN VOB_ID OR PTT_ID SPECIFIED BY CORRESPONDING CELL FROM CELL PLAYBACK INFORMATION STORED IN RAM <ST13>

OBTAIN DISC ADDRESS OF VOB TO BE REPRODUCED BASED ON VOB INFORMATION OR PTT INFORMATION STORD IN RAM <\$T14>

ACCESS VOB RECORDED IN DISC BASED ON CONTROL SIGNAL FROM SYSTEM CONTROLLER TO REPRODUCE INFORMATION OF VOB, & PROVIDE REPRODUCED INFORMATION AS AV OUTPUT FOR DISPLAY <ST18>

RECEIVE ADDITIONAL INFO. INPUT BY USER WHILE DISPLAYING AV OUTPUT, & GROUP ONE OR MORE STILL PICTURES AT FORMATTER BASED ON USER-INPUT INFORMATION TO PREPARE VOB OR PTT <ST19>

RECORD INFORMATION OF VOB PREPARED BY FORMATTER <ST20>

END

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START

OBTAIN ALL CONTENTS OF CONTROL INFORMATION (RTR.1FO) FROM DISC, & STORE OBTAINED CONTENTS IN RAM OF SYSTEM CONTROLLER <ST11>

OBTAIN PLAYBACK CONTROL INFO. FROM CONTROL INFO. STORED IN RAM, & INTERPRETE OBTAINED INFORMATION AS TO MANNER OF REPRODUCTION <ST12>

SEARCH PROGRAM TO BE REPRODUCED BASED ON PGC CONTROL INFO. IN RAM, OBTAIN CELL(S) IN PGC INFORMATION OF SEARCHED PROGRAM, & OBTAIN VOB_ID OR PTT_ID SPECIFIED BY CORRESPONDING CELL FROM CELL PLAYBACK INFORMATION STORED IN RAM <ST13>

OBTAIN DISC ADDRESS OF VOB TO BE REPRODUCED BASED ON VOB INFORMATION OR PTT INFORMATION STORD IN RAM <\$T14>

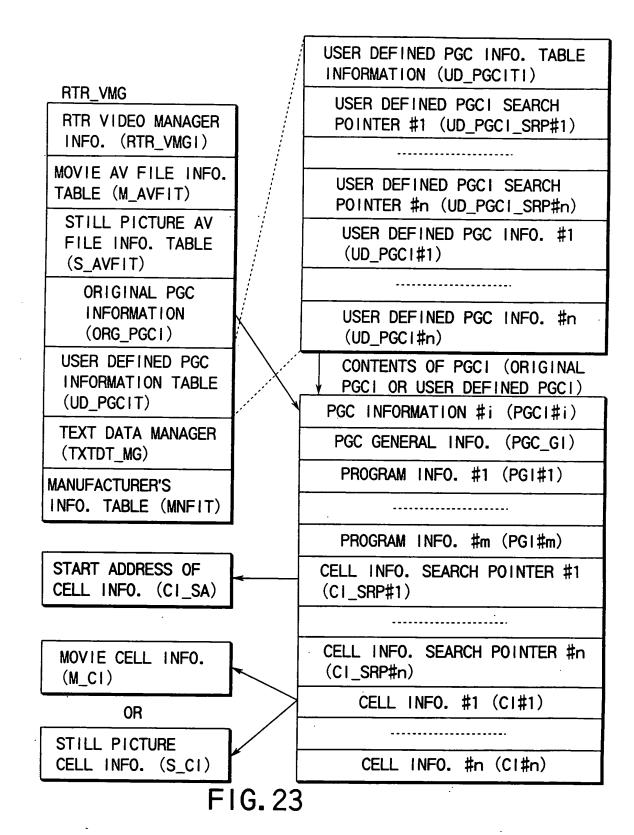
ACCESS VOB RECORDED IN DISC BASED ON CONTROL SIGNAL FROM SYSTEM CONTROLLER TO REPRODUCE INFORMATION OF VOB, & PROVIDE REPRODUCED INFORMATION AS AV OUTPUT FOR DISPLAY <ST18>

ACCESS VOB #A RECORDED IN DISC TO PROVIDE STILL PICTURE INFORMATION OF VOB #A <ST16>

ACCESS VOB #B IN DISC TO REPRODUCE AUDIO INFORMATION OF VOB #B, & PROVIDE AUDIO INFO. OF VOB #B AND STILL PICTURE INFO. OF VOB #A AS AV OUTPUT FOR STILL PICTURE DISPLAY WITH SOUND <ST17>

END

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STILL PICTURE CELL INFO. (S_CI)

STILL PICTURE CELL GENERAL
INFORMATION (S_C_GI)

STILL PICT. CELL ENTRY POINT
INFORMATION #1 (S_C_EPI#1)

STILL PICT. CELL ENTRY POINT INFORMATION #n (S_C_EPI#n)

FIG. 24

CONTENTS OF S_C_GI

FIELD NAME	CONTENTS
RESERVED	RESERVED
C_TY	CELL TYPE
S_VOGI_SRPN	S_VOGI SEARCH POINTER NUMBER
C_EPI_Ns	NUMBER OF CELL ENTRY POINT INFO.
S_S_VOB_ENTN	START S_VOB_ENT NUMBER
E_S_VOB_ENTN	END S_VOB_ENT NUMBER

FIG. 25

CONTENTS OF S_C_EPI

FIELD NAME	CONTENTS
EP_TY	ENTRY POINT TYPE
S_VOB_ENTN	S_VOB_ENT NUMBER
PRM_TXT1	PRIMARY TEXT INFORMATION

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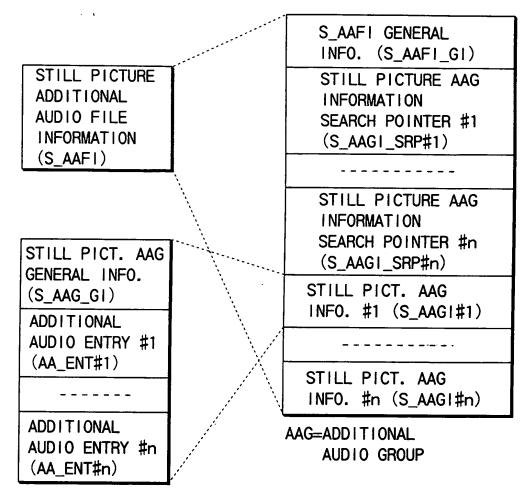


FIG. 27

CONTENTS OF S_AAG_GI

FIELD NAME	CONTENTS
AA_ENT_Ns	NUMBER OF AA_ENT
S_AA_STIN	STILL PICTURE ADDITIONAL AUDIO STREAM INFORMATION NUMBER
S_AAG_SA	START ADDRESS OF THIS AAG IN STILL PICTURE ADDITIONAL AUDIO FILE

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CONTENTS OF AA_ENT

FIELD NAME	CONTENTS
AA_TY	ADDITIONAL AUDIO TYPE
AA_SZ	SIZE OF ADDITIONAL AUDIO STREAM
AA_PB_TM	PLAYBACK TIME OF ADDITIONAL AUDIO STREAM (MEASURED BY VIDEO FIELDS)

FIG. 29

CONTENTS OF S_VOG_GI

FIELD NAME	CONTENTS
S_VOB_Ns	NUMBER OF S_VOBs
S_VOB_STIN	STILL PICTURE VOB STREAM INFORMATION NUMBER
FIRST_VOB_REC_TM	TIME WHEN THE FIRST VOB IN THIS VOB GROUP WAS RECORDED
LAST_VOB_REC_TM	TIME WHEN THE LAST VOB IN THIS VOB GROUP WAS RECORDED
S_VOG_SA	START ADDRESS OF THIS VOB GROUP IN STILL PICTURE AV FILE

FIG. 30

CONTENTS OF S_VOB_ENT (TYPE 1)

FIELD NAME	CONTENTS
S_VOB_ENT_TY	STILL PICTURE VOB ENTRY TYPE
V_PART_SZ	SIZE OF VIDEO PART

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CONTENTS OF S_VOB_ENT (TYPE 2)

FIELD NAME	CONTENTS
S_VOB_ENT_TY	STILL PICTURE VOB ENTRY TYPE
V_PART_SZ	SIZE OF VIDEO PART
A_PART_SZ	SIZE OF ORIGINAL AUDIO PART
A_PB_TM	PLAYBACK TIME OF AUDIO PART (DESCRIBED IN VIDEO FIELDS)

FIG. 32

CONTENTS OF S_VOB_ENT (TYPE 3)

FIELD NAME	CONTENTS
S_VOB_ENT_TY	STILL PICTURE VOB ENTRY TYPE
V_PART_SZ	SIZE OF VIDEO PART
S_AAGN	ADDITIONAL AUDIO GROUP NUMBER
AA_ENTN	AA_ENT NUMBER

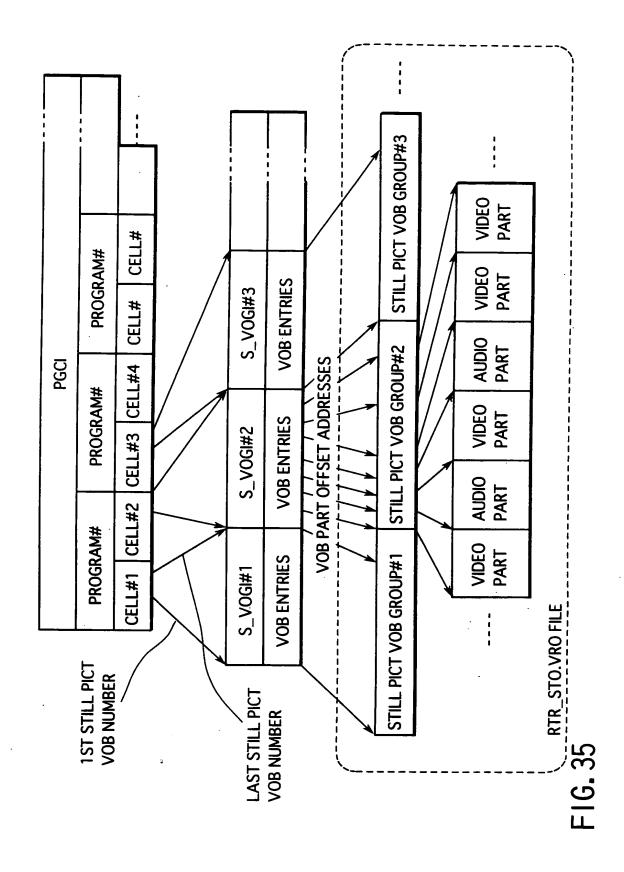
FIG. 33

CONTENTS OF S_VOB_ENT (TYPE 4)

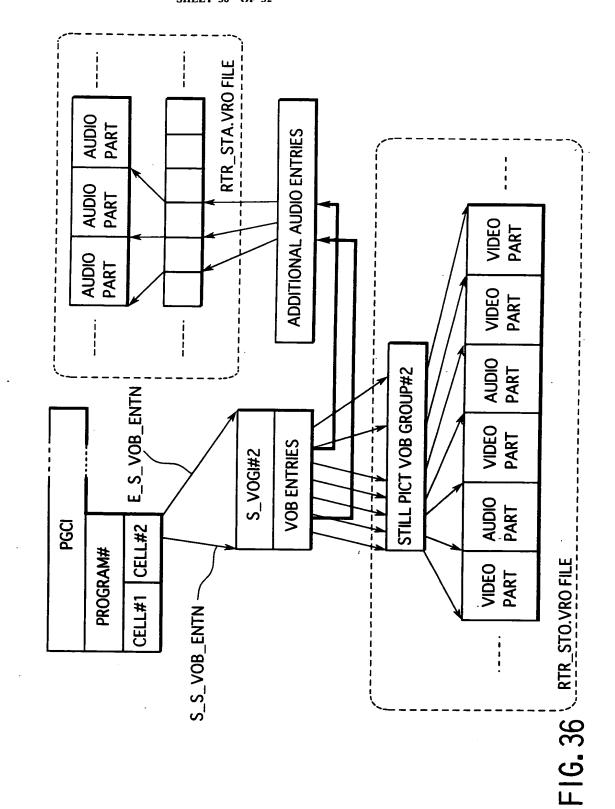
FIELD NAME	CONTENTS
S_VOB_ENT_TY	STILL PICTURE VOB ENTRY TYPE
V_PART_SZ	SIZE OF VIDEO PART
A_PART_SZ	SIZE OF ORIGINAL AUDIO PART
A_PB_TM	PLAYBACK TIME OF AUDIO PART
S_AAGN	ADDITIONAL AUDIO GROUP NUMBER
AA_ENTN	AA_ENT NUMBER

FIG. 34

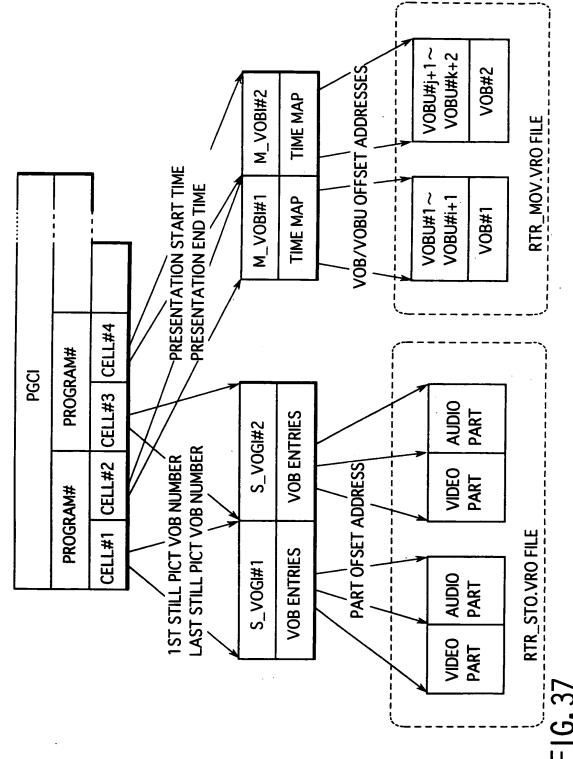
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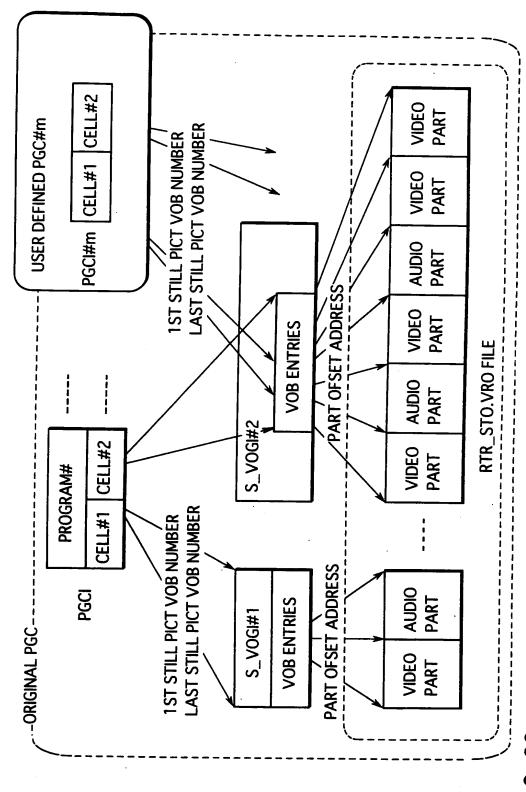


FIG. 38